

Monitoring for Lead

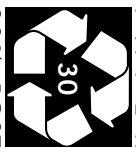
Concord has been successful in meeting the requirements of EPA's Lead and Copper Rule. After meeting the standards in successive rounds of testing, the City qualified for a triennial monitoring schedule. The next round of sampling will occur during the fourth quarter of 2005.

However, depending on the plumbing materials used in your home, it is possible that lead levels at your home may be higher than at other homes in the community. You should know that infants and young children are more vulnerable to lead in drinking water than the general population. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. You can reduce your exposure by running the water for a short time (30 seconds to 2 minutes) before consuming the tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Radon

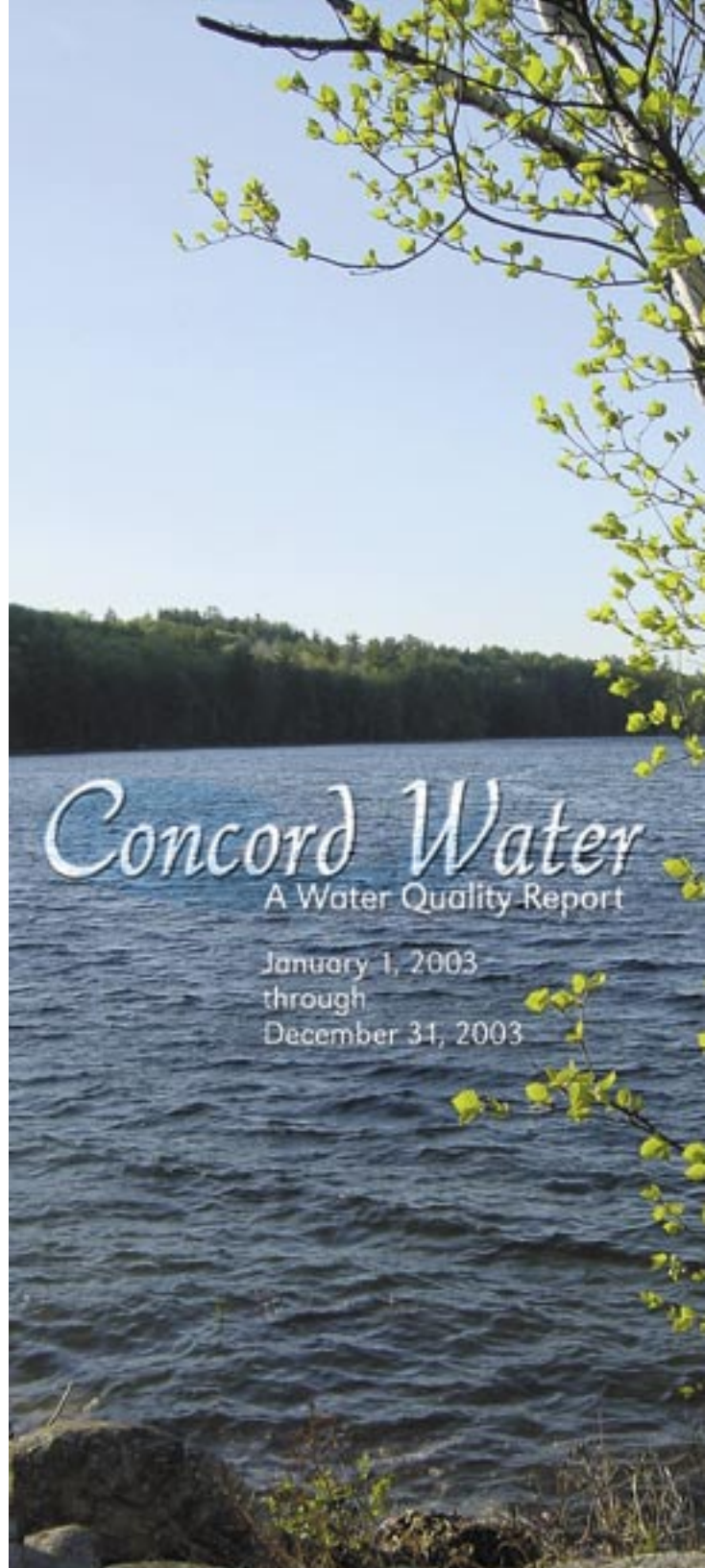
As shown in Table #2, the City's well water contains some radon. Presently, the U.S. Environmental Protection Agency is reviewing a proposed standard of 300 pCi/L for radon in drinking water. This review will not be completed until, at the least, December 2004. Radon gas that is inhaled has been linked to lung cancer; however, it is not entirely clear at what level radon in your drinking water contributes to this and other possible carcinogenic effects.

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Concord, NH 03301

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From the Director

I am proud to present to our customers the sixth annual Consumer Confidence Report. It provides valuable information about our water supply. We encourage you to carefully examine its contents. We remain committed to meeting the needs of the community we serve.

Earle M. Chesley, P.E.

Director, General Services Department

What you should know about Drinking Water

The sources of drinking water (both tap water and bottled water) include lakes, rivers, springs and wells. Water by its very nature tends to dissolve and erode the materials in its path as it travels over land or through the ground. As a result, natural minerals as well as substances that are present in the environment due to human activity become contaminants of our source waters. These contaminants may include:

- Microbes, such as bacteria, protozoa, and viruses, which may come from sewage treatment plants, septic systems, livestock, and wildlife (examples: E. coli, Giardia, Cryptosporidium, Hepatitis A).
- Inorganic chemicals, such as salts and metals, which can be naturally occurring or may result from stormwater runoff, industrial or domestic wastewater, and farming (examples: arsenic, phosphates).
- Volatile Organic Compounds and Synthetic Organic Compounds which originate from industrial discharges, agriculture, gas stations, stormwater runoff, residential uses and septic systems (examples: MtBE, pesticides, herbicides).

- Radioactive contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities (example: radon).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Where does Concord get its water?

Penacook Lake in West Concord has been the city's primary water supply for well over 100 years. The City can supplement this supply by using its pumping station on the Contoocook River. Concord also has a ground water supply along the Soucook River. These wells had been inactive for many years, but in 2002 the Water Plant staff began the task of bringing the Sanders Station Wells back into service as a secondary supply.

Turbidity

Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of how well the filtration treatment process is functioning.

The City of Concord welcomes public input on the programs and activities of all City departments. We encourage residents to call or write their City Councilor, the City Manager, or the General Services Director to express concerns or interest in the operation of the City's water utility.

Concord's water supply is managed by the City's General Services Department.

*Administrative offices are located at
311 North State Street, (603) 228-2737*

*Normal business hours:
Monday – Friday 7:30 a.m. to 4:30 p.m.*

*Chip Chesley,
Director General Services Department
(603) 228-2737*

*James Donison,
Water Treatment Plant Superintendent
(603) 225-8696*

*Billing or metering/New water service
(603) 225-8693*

*No or low water pressure/Rusty water
(603) 228-2737*

*Water quality questions,
complaints or testing
(603) 225-8696*

*Service after business hours
(603) 225-8696*

City website – <http://www.onconcord.com>

National Drinking Water Standards

There are currently more than 80 potential drinking water contaminants that all U.S. public water systems must test for on a regular basis. The tables below indicate those that were found in Concord's water. Table 1 describes the water from Penacook Lake. Table 2 shows results from the city's wells. Not all tests are required every year. The tables contain the most recent results up to December 31, 2003.

One of these substances exceeded drinking water treatment requirements set by US EPA. Total Organic Carbon or TOC is discussed below.

Substance (Date Tested)	Level Measured	MCL	MCLG	Meets Limits?	Likely Source
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Table #1—Penacook Lake

Arsenic (2000)	Highest measurement	2 µg/L	50 µg/L	n/a	yes	Erosion of natural earth deposits.
Chlorine (2003)	Average Range of measurements	1.86mg/L 1.67–2.12	MRDL=4 mg/L	MRDLG= 4 mg/L	yes	Water additive used to control microbes.
Copper (2002)	90th percentile # of sites above the AL	0.085 mg/L 2 sites	AL=1.3 mg/L	1.3 mg/L	yes	Corrosion of household plumbing.
Fluoride (2000)	Highest measurement	1.2 mg/L	4.0 mg/L	4.0 mg/L	yes	Water additive which promotes strong teeth. Erosion of natural earth deposits.
Lead (2002)	90th percentile # above the AL	9.7 µg/L 3 sites	AL=15 µg/L	0 µg/L	yes	Corrosion of household plumbing.
Total THMs (2003)	Highest annual average Range of measurements	54.8 µg/L 17 to 88	80 µg/L as the Running Annual Average	n/a	yes	By-product of drinking water disinfection with chlorine.
Total HAA5s (2003)	Highest annual average Range of measurements	39.7 µg/L 14 to 77	60 µg/L as the Running Annual Average	n/a	yes	By-product of drinking water disinfection with chlorine.
TOC (2003)	Highest annual average Range of measurements	2.13 mg/L 1.6 to 2.9	TT=35% removal or alternate criteria	n/a	no	Naturally present in the environment.
Turbidity (2003)	Highest measurement Percent OK	0.27 NTU 100%	TT=1 NTU 95%<0.3 NTU	n/a	yes	Soil runoff.

Table #2—Sanders Station Wells

Nitrate (2003)	Average Range of measurements	0.39 mg/L 0.19 to 0.90	10mg/L	10 mg/L	yes	Erosion of natural earth deposits. Runoff from fertilizers. Leaching from septic systems.
Methy tertiary- Butyl Ether (MtBE) (2003)	Average Range of measurements	1.27 µg/L 0.53 to 5.10	13 µg/L	13 µg/L	yes	A gasoline additive that leaches into ground water.
1,1,1-trichlor- oroethane (2003)	Measurement	0.5 µg/L	200 µg/L	200 µg/L	yes	Discharge from metal degreasing and other industries.
Radon (2003)	Average Range of measurements	1,342 pCi/L 380 to 6,800	No MCL set	No MCL set	None set	A gas released from natural earth deposits.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.
AL (Action Level): The concentration of a contaminant, which if exceeded, triggers treatment or other requirements which a water system must follow.
TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

mg/L = milligrams per liter. A unit of concentration also described as Parts per Million.
µg/L = micrograms per liter. A smaller unit of concentration also described as Parts per Billion.
MRDLG = Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial growth.
MRDL = Maximum Residual Disinfectant Level, the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

NTU = Nephelometric Turbidity Units. A measurement of the cloudiness of water.
pCi/L = pico curies per liter, a measurement of radioactivity.
THM = Trihalomethanes.
HAA5 = Haloacetic Acids
TOC = Total Organic Carbon
< = less than.
n/a = not applicable.

About TOC

In February or March most of you received a notice from the City about your drinking water. The notice indicated that the Concord Water System had not met a drinking water treatment requirement for the removal of *Total Organic Carbon* (TOC).

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Some people who drink water containing these byproducts in excess of the MCL over many years may experience adverse health effects, liver or kidney problems, or nervous system effects, and may be at an increased risk of getting cancer.

The Concord Water System has submitted a report to state regulators on TOC removal issues. The Water System will continue using alternative methods to control disinfection byproducts, and is pursuing ways to optimize TOC removal.

NHDES Source Assessment Report

The NH Department of Environmental Services has completed assessments of water supplies throughout the state. The reports analyzed community water sources and rated them regarding certain water quality risk factors. Our report indicated that the majority of these risks were rated low or medium for Concord’s water supplies.

The complete Source Assessment Report is available for review at the Concord Water Treatment Plant, 53 Hutchins Street in Concord. For more information, call James Donison at (603) 225-8696 or visit NH DES’s Drinking Water Source Assessment Program web site at www.des.state.nh.us/dwspp.

In addition to the required tests, there are other water quality characteristics that we monitor. The chart below summarizes these 2003 test results.

Substance	Average
Sodium	32 mg/L
Manganese	0.01 mg/L
Iron	Less than 0.01 mg/L
Aluminum	0.03 mg/L
Calcium	4.5 mg/L
Hardness	12 mg/L (very soft)
pH	9.2 units
Alkalinity (as CaCO3)	32.0 mg/L